MS Word Exhibit 300 for DME/Mixed (BY2008) (Form) / JSC Mission Control Center (Item)

Form Report, printed by: System Administrator, **Jan 31, 2007**

OVERVIEW

General Information	
1. Date of Submission:	Jan 24, 2007
2. Agency:	026
3. Bureau:	00
4. Name of this Capital Asset:	JSC Mission Control Center
Investment Portfolio:	BY OMB 300 Items
5. Unique ID:	026-00-01-02-01-1406-00
(For IT investments only, see section 53. For all other, use agency ID system.)	

All investments
6. What kind of investment will this be in FY2008?
(Please NOTE: Investments moving to O&M ONLY in FY2008, with Planning/Acquisition activities prior to FY2008 should not select O&M. These investments should indicate their current status.)
Mixed Life Cycle
7. What was the first budget year this investment was submitted to OMB?
FY2003
8. Provide a brief summary and justification for this investment, including a brief description of how this closes in part or in whole an identified agency performance gap.
The Mission Control Center (MCC) is a "world class" spacecraft command and control facility able to support multiple spaceflight programs while reducing long term operations and maintenance cost. The MCC provides flight operations and support for all of NASA's human space flight activities. The MCC provides the primary means of controlling crewed spacecraft operated by NASA. Ground-based flight controllers observe the spacecraft systems through telemetry sent from the spacecraft to the ground. These same controllers are also responsible for managing the control elements of the spacecraft via ground-to-vehicle commands. The MCC communications network is responsible for all communication between the controllers on the ground, all communications with the crew, and command and control of all other support staff located at sites around the globe. The MCC itself is a web of subsystems, operating in concert to provide command and control functions that support the flight controllers. The MCC directly supports NASA's goals by providing command and control capabilities for safe mission operations of the International Space Station and Space Shuttle. The MCC provides common infrastructure architecture of distributed COTS, Unix workstations, servers, networks, voice systems, data storage and retrieval, and platform software to support multiple vehicles. The general-purpose software architecture provides a level of software infrastructure independent of program and vehicle. Initially developed in the mid 1960s in support of NASA's Gemini program, the MCC is still in operation today supporting both the Space Shuttle and Space Station programs. While the MCC's basic mission of supporting space flight operations remains the same, the MCC's functionality has changed significantly in order to manage the increased technical complexity of our modern day Space Shuttle and Space Station systems. Additional investments in Information Technology are necessary not only to maintain the existing equipment, but also to replace the equipment as it becomes non-maintainable due to escalating sustaining costs or due to the unavailability of commercial vendors.
9. Did the Agency's Executive/Investment Committee approve this request?
Yes
9.a. If "yes," what was the date of this approval?
Dec 16, 2005
10. Did the Project Manager review this Exhibit?
Yes
12. Has the agency developed and/or promoted cost effective, energy-efficient and environmentally sustainable techniques or practices for this project.

Yes

12.a. Will this investment include electronic assets (including computers)?

Yes

12.b. Is this investment for new construction or major retrofit of a Federal building or facility? (answer applicable to non-IT assets only)

No

12.b.1. If "yes," is an ESPC or UESC being used to help fund this investment?

12.b.2. If "yes," will this investment meet sustainable design principles?

12.b.3. If "yes," is it designed to be 30% more energy efficient than relevant code?

13. Does this investment support one of the PMA initiatives?

Yes

If "yes," select the initiatives that apply:

Human Capital	Yes
Budget Performance Integration	Yes
Financial Performance	
Expanded E-Government	
Competitive Sourcing	Yes
Faith Based and Community	
Real Property Asset Management	
Eliminating Improper Payments	
Privatization of Military Housing	
R and D Investment Criteria	
Housing and Urban Development Management and Performance	
Broadening Health Insurance Coverage through State Initiatives	
Right Sized Overseas Presence	
Coordination of VA and DoD Programs and Systems	

13.a. Briefly describe how this asset directly supports the identified initiative(s)?

Human Capital – The MCC fosters a culture that is built on trust, respect, teamwork, communication, creativity, and empowerment.
Budget Performance - Objectives/goals for Shuttle Program are planned and measured accordingly through the use of the Integrated Budget and Performance Document.
Competition - Approximately 95% of MCC funding is contracted dollars. The prime contractor for MCC operations utilizes competitively awarded procurements whenever possible.

14. Does this investment support a program assessed using OMB's Program Assessment Rating Tool (PART)?

Yes

14.a. If "yes," does this investment address a weakness found during the PART review?

No

14.b. If "yes," what is the name of the PART program assessed by OMB's Program Assessment Rating Tool?

Space and Flight Support

14.c. If "yes," what PART rating did it receive?

Adequate

15. Is this investment for information technology (See section 53 for definition)?

Yes

For information technology investments only:

16. What is the level of the IT Project (per CIO Council's PM Guidance)?

Level 3

17. What project management qualifications does the Project Manager have? (per CIO Council's PM Guidance)

(1) Project manager has been validated as qualified for this investment

18. Is this investment identified as "high risk" on the Q4 - FY 2006 agency high risk report (per OMB's 'high risk" memo)?

No

19. Is this a financial management system?

No

19.a. If "yes," does this investment address a FFMIA compliance area?

19.a.1. If "yes," which compliance area:

19.a.2. If "no," what does it address?

Human Spacefight

19.b. If "yes," please identify the system name(s) and system acronym(s) as reported in the most recent financial systems inventory update required by Circular A–11 section 52.

20. What is the percentage breakout for the total FY2008 funding request for the following? (This should total 100%)

Area	Percentage	
Hardware	18.00	
Software	2.00	
Services	80.00	
Other		
Total	100.00	

21. If this project produces information dissemination products for the public, are these products published to the Internet in conformance with OMB Memorandum 05-04 and included in your agency inventory, schedules and priorities?

N/A

22. Contact information of individual responsible for privacy related questions

Name	Patti Stockman
Phone Number	(202) 358-4787
Title	Privacy and Records Manager
Email	patti.stockman@nasa.gov

23. Are the records produced by this investment appropriately scheduled with the National Archives and Records Administration's approval?

Yes

PERFORMANCE

Performance Information

In order to successfully address this area of the exhibit 300, performance goals must be provided for the agency and be linked to the annual performance plan. The investment must discuss the agency's mission and strategic goals, and performance measures must be provided. These goals need to map to the gap in the agency's strategic goals and objectives this investment is designed to fill. They are the internal and external performance benefits this investment is expected to deliver to the agency (e.g., improve efficiency by 60 percent, increase citizen participation by 300 percent a year to achieve an overall citizen participation rate of 75 percent by FY 2xxx, etc.). The goals must be clearly measurable investment outcomes, and if applicable, investment outputs. They do not include the completion date of the module, milestones, or investment, or general goals, such as, significant, better, improved that do not have a quantitative or qualitative measure.

Agencies must use Table 1 below for reporting performance goals and measures for all non-IT investments and for existing IT investments that were initiated prior to FY 2005. The table can be extended to include measures for years beyond FY 2006.

Table 1

	Fiscal Year	Strategic Goal(s) Supported	Performance Measure	Actual/baseline (from Previous Year)	Planned Performance Metric (Target)	Performance Metric Results (Actual)
1	2003	Goal 8: Ensure the provision of space access and improve it by increasing safety, reliability and affordability. Goal 9: Extend the duration and boundaries of human space flight to create new opportunities for exploration and discovery.	Availability of ground system services for MCC critical and non-critical Shuttle and Station functions for all unscheduled outages and down time. Supports the strategic goal of enhancing efficiency in operations and sustaining of the MCC.	Average actual performance for FY03 was on par with the prior year performance.	Provide 98% availability of ground system services for MCC critical and non-critical Shuttle and Station functions for all unscheduled outages and down time.	99.8%
2	2004	Goal 8: Ensure the provision of space access and improve it by increasing safety, reliability and affordability. Goal 9: Extend the duration and boundaries of human space flight to create new opportunities for exploration and discovery.	Availability of ground system services for MCC critical and non-critical Shuttle and Station functions for all unscheduled outages and down time. Supports the strategic goal of enhancing efficiency in operations and sustaining of the MCC.	Average actual performance for the first three quarters of FY04 resulted in an improvement of .1%.	Provide 98% availability of non-critical functions for all unscheduled outages and down time.	99.9%

3	2004	Goal 8: Ensure the provision of space access and improve it by increasing safety, reliability and affordability. Goal 9: Extend the duration and boundaries of human space flight to create new opportunities for exploration and discovery.	Software fault density measures software quality. Supports the strategic goal of enhancing efficiency in operations and sustaining of the MCC.	Exceeded goal.	Achieve a software fault density of no more than 1 anomaly per 5 thousand source lines of code (KSLOC) for mature software (greater than 2 years old) and 1 anomaly per 1 KSLOC for code less than 2 years old.	Averaged .14 anomaly reports in 2004.

All new IT investments initiated for FY 2005 and beyond must use Table 2 and are required to use the FEA Performance Reference Model (PRM). Please use Table 2 and the PRM to identify the performance information pertaining to this major IT investment. Map all Measurement Indicators to the corresponding "Measurement Area" and "Measurement Grouping" identified in the PRM. There should be at least one Measurement Indicator for at least four different Measurement Areas (for each fiscal year). The PRM is available at www.egov.gov.

Table 2

	Fiscal Year	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Planned Improvements to the Baseline	Actual Results
1	2005	Technology	Reliability and Availability	Availability	Availability of ground system services for MCC critical and non-critical Shuttle and Station functions for all unscheduled outages and down time. Supports the strategic goal of enhancing efficiency in operations and sustaining of the MCC.	Provide 98% availability of non-critical functions for all unscheduled outages and down time.	Increase to and maintain availability at 100% from 2005 through end of life 2016.	Averaged 99.9% availability Jan-May of 2005.
2	2005	Processes and Activities	Quality	Errors	Software fault density measures software quality. Errors are reported via anamoly reports. Supports the strategic goal of enhancing efficiency in operations and sustaining of the MCC.	Achieve a software fault density of no more than 1 anomaly report per thousand (.20) source lines of code (KSLOC) for mature software.	Maintain the current baseline from 2005 through end of life 2016.	Averaged .13 anomaly reports per KSLOC for the past 12 months (Aug '04-Jul '05).
3	2005	Customer Results	Timeliness and Responsiveness	Response Time	Implement changes to the MCC baseline that are designated as Flight Priority 1 and return the system to an operational status within the period agreed to by the user (Operational Need Date/OND).	Meet the OND for all Flight Priority 1 service requests.	Maintain the current baseline from 2005 through end of life 2016.	Currently performing at 100%. ONDs for all Flight Priority 1 service requests have been met in 2005

4	2005	Mission and Business Results	Transportation	Space Operations	Provide command and control capabilities for safe mission operations of the International Space Station and Space Shuttle.	Ensure the MCC is able to provide command and control of Shuttle and Station activities without causing delays to the mission.	Maintain the current baseline from 2005 through end of life 2016.	Currently performing at 100%. The MCC has not caused a Shuttle launch or Station activity delay during the performance period.
5	2006	Technology	Reliability and Availability	Availability	Availability of ground system services for MCC critical and non-critical Shuttle and Station functions for all unscheduled outages and down time.	Provide 98% availability of non-critical functions for all unscheduled outages and down time.	Increase to and maintain availability at 100% through end of life 2016.	Continued to average 99.9% availability over the past 12 months (Apr 05-Mar 06)
6	2006	Processes and Activities	Quality	Errors	Software fault density measures software quality. Errors are reported via anamoly reports. Supports the strategic goal of enhancing efficiency in operations and sustaining of the MCC.	Achieve a software fault density of no more than 1 anomaly report per thousand (.20) source lines of code (KSLOC) for mature software.	Maintain the current baseline through end of life.	Averaged .013 anomaly reports per KSLOC for the past 12 months (Apr-05 thru Mar 06)
7	2006	Customer Results	Timeliness and Responsiveness	Response Time	Implement changes to the MCC baseline designated as Flight Priority 1 and return the system to operational status within the period agreed to by the user (Operational Need Date/OND).	Meet the OND for all Flight Priority 1 service requests.	Maintain the current baseline through end of life.	Currently performing at 100%. ONDs for all Flight Priority 1 service requests have been met over the past 12 mos.
8	2006	Mission and Business Results	Transportation	Space Operations	Provide command and control capabilities for safe mission operations of the International Space Station and Space Shuttle.	Ensure the MCC is able to provide command and control of Shuttle and Station activities without causing delays to the mission.	Maintain the current baseline through end of life.	Currently performing at 100%. The MCC has not caused a Shuttle launch or Station activity delay during the performance period.
9	2007	Technology	Reliability and Availability	Availability	Availability of ground system services for MCC critical and non-critical Shuttle and Station functions for all unscheduled outages and down time.	Provide 98% availability of non-critical functions for all unscheduled outages and down time.	Increase to and maintain availability at 100% through end of life 2016.	TBD

10	2007	Processes and Activities	Quality	Errors	Software fault density measures software quality. Errors are reported via anamoly reports. Supports the strategic goal of enhancing efficiency in operations and sustaining of the MCC.	Achieve a software fault density of no more than 1 anomaly per 5 thousand source lines of code (KSLOC) for mature software (greater than 2 years old) and 1 anomaly per 1 KSLOC for code less than 2 years old.	Maintain the current baseline through end of life.	TBD
11	2007	Customer Results	Timeliness and Responsiveness	Response Time	Implement changes to the MCC baseline designated as Flight Priority 1 and return the system to operational status within the period agreed to by the user (Operational Need Date/OND).	Meet the OND for all Flight Priority 1 service requests.	Maintain the current baseline through end of life.	TBD
12	2007	Mission and Business Results	Transportation	Space Operations	Provide command and control capabilities for safe mission operations of the International Space Station and Space Shuttle.	Ensure the MCC is able to provide command and control of Shuttle and Station activities without causing delays to the mission.	Maintain the current baseline through end of life.	TBD
13	2008	Technology	Reliability and Availability	Availability	Availability of ground system services for MCC critical and non-critical Shuttle and Station functions for all unscheduled outages and down time.	Provide 98% availability of non-critical functions for all unscheduled outages and down time.	Increase to and maintain availability at 100% through end of life 2016.	TBD
14	2008	Processes and Activities	Quality	Errors	Software fault density measures software quality. Errors are reported via anamoly reports. Supports the strategic goal of enhancing efficiency in operations and sustaining of the MCC.	Achieve a software fault density of no more than 1 anomaly per 5 thousand source lines of code (KSLOC) for mature software (greater than 2 years old) and 1 anomaly per 1 KSLOC for code less than 2 years old.	Maintain the current baseline through end of life.	TBD
15	2008	Customer Results	Timeliness and Responsiveness	Response Time	Implement changes to the MCC baseline designated as Flight Priority 1 and return the system to operational status within the period agreed to by the user (Operational Need Date/OND).	Meet the OND for all Flight Priority 1 service requests.	Maintain the current baseline through end of life.	TBD
16	2008	Mission and Business Results	Transportation	Space Operations	Provide command and control capabilities for safe mission operations of the International Space Station and Space Shuttle.	Ensure the MCC is able to provide command and control of Shuttle and Station activities without causing delays to the mission.	Maintain the current baseline through end of life.	TBD

17	2009	Technology	Reliability and Availability	Availability	Availability of ground system services for MCC critical and non-critical Shuttle and Station functions for all unscheduled outages and down time.	Provide 98% availability of non-critical functions for all unscheduled outages and down time.	Increase to and maintain availability at 100% through end of life 2016.	TBD
18	2009	Processes and Activities	Quality	Errors	Software fault density measures software quality. Errors are reported via anamoly reports. Supports the strategic goal of enhancing efficiency in operations and sustaining of the MCC.	Achieve a software fault density of no more than 1 anomaly per 5 thousand source lines of code (KSLOC) for mature software (greater than 2 years old) and 1 anomaly per 1 KSLOC for code less than 2 years old.	Maintain the current baseline through end of life.	TBD
19	2009	Customer Results	Timeliness and Responsiveness	Response Time	Implement changes to the MCC baseline designated as Flight Priority 1 and return the system to operational status within the period agreed to by the user (Operational Need Date/OND).	Meet the OND for all Flight Priority 1 service requests.	Maintain the current baseline through end of life.	TBD
20	2009	Mission and Business Results	Transportation	Space Operations	Provide command and control capabilities for safe mission operations of the International Space Station and Space Shuttle.	Ensure the MCC is able to provide command and control of Shuttle and Station activities without causing delays to the mission.	Maintain the current baseline through end of life.	TBD
21	2010	Technology	Reliability and Availability	Availability	Availability of ground system services for MCC critical and non-critical Shuttle and Station functions for all unscheduled outages and down time.	Provide 98% availability of non-critical functions for all unscheduled outages and down time.	Increase to and maintain availability at 100% through end of life 2016.	TBD
22	2010	Processes and Activities	Quality	Errors	Software fault density measures software quality. Errors are reported via anamoly reports. Supports the strategic goal of enhancing efficiency in operations and sustaining of the MCC.	Achieve a software fault density of no more than 1 anomaly per 5 thousand source lines of code (KSLOC) for mature software (greater than 2 years old) and 1 anomaly per 1 KSLOC for code less than 2 years old.	Maintain the current baseline through end of life.	TBD
23	2010	Customer Results	Timeliness and Responsiveness	Response Time	Implement changes to the MCC baseline designated as Flight Priority 1 and return the system to operational status within the period agreed to by the user (Operational Need Date/OND).	Meet the OND for all Flight Priority 1 service requests.	Maintain the current baseline through end of life.	TBD

24	2010	Mission and Business Results	Transportation	Space Operations	Provide command and control capabilities for safe mission operations of the International Space Station and Space Shuttle.	Ensure the MCC is able to provide command and control of Shuttle and Station activities without causing delays to the mission.	Maintain the current baseline through end of life.	TBD
25	2011	Technology	Reliability and Availability	Availability	Availability of ground system services for MCC critical and non-critical Shuttle and Station functions for all unscheduled outages and down time.	Provide 98% availability of non-critical functions for all unscheduled outages and down time.	Increase to and maintain availability at 100% through end of life 2016.	TBD
26	2011	Processes and Activities	Quality	Errors	Software fault density measures software quality. Errors are reported via anamoly reports. Supports the strategic goal of enhancing efficiency in operations and sustaining of the MCC.	Achieve a software fault density of no more than 1 anomaly per 5 thousand source lines of code (KSLOC) for mature software (greater than 2 years old) and 1 anomaly per 1 KSLOC for code less than 2 years old.	Maintain the current baseline through end of life.	TBD
27	2011	Customer Results	Timeliness and Responsiveness	Response Time	Implement changes to the MCC baseline designated as Flight Priority 1 and return the system to operational status within the period agreed to by the user (Operational Need Date/OND).	Meet the OND for all Flight Priority 1 service requests.	Maintain the current baseline through end of life.	TBD
28	2011	Mission and Business Results	Transportation	Space Operations	Provide command and control capabilities for safe mission operations of the International Space Station and Space Shuttle.	Ensure the MCC is able to provide command and control of Shuttle and Station activities without causing delays to the mission.	Maintain the current baseline through end of life.	TBD
29	2012	Technology	Reliability and Availability	Availability	Availability of ground system services for MCC critical and non-critical Shuttle and Station functions for all unscheduled outages and down time.	Provide 98% availability of non-critical functions for all unscheduled outages and down time.	Increase to and maintain availability at 100% through end of life 2016.	TBD
30	2012	Processes and Activities	Quality	Errors	Software fault density measures software quality. Errors are reported via anamoly reports. Supports the strategic goal of enhancing efficiency in operations and sustaining of the MCC.	Achieve a software fault density of no more than 1 anomaly per 5 thousand source lines of code (KSLOC) for mature software (greater than 2 years old) and 1 anomaly per 1 KSLOC for code less than 2 years old.	Maintain the current baseline through end of life.	TBD

31	2012	Customer Results	Timeliness and Responsiveness	Response Time	Implement changes to the MCC baseline designated as Flight Priority 1 and return the system to operational status within the period agreed to by the user (Operational Need Date/OND).	Meet the OND for all Flight Priority 1 service requests.	Maintain the current baseline through end of life.	TBD
32	2012	Mission and Business Results	Transportation	Space Operations	Provide command and control capabilities for safe mission operations of the International Space Station and Space Shuttle.	Ensure the MCC is able to provide command and control of Shuttle and Station activities without causing delays to the mission.	Maintain the current baseline through end of life.	TBD

EA

Enterprise Architecture (EA)

In order to successfully address this area of the business case and capital asset plan you must ensure the investment is included in the agency's EA and Capital Planning and Investment Control (CPIC) process, and is mapped to and supports the FEA. You must also ensure the business case demonstrates the relationship between the investment and the business, performance, data, services, application, and technology layers of the agency's EA.

1. Is this investment included in your agency's target enterprise architecture?

Yes

1.a. If "no," please explain why?

2. Is this investment included in the agency's EA Transition Strategy?

Yes

2.a. If "yes," provide the investment name as identified in the Transition Strategy provided in the agency's most recent annual EA Assessment.

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2.b. If "no," please explain why?

Service Reference Model

3. Identify the service components funded by this major IT investment (e.g., knowledge management, content management, customer relationship management, etc.). Provide this information in the format of the following table. For detailed guidance regarding components, please refer to http://www.whitehouse.gov/omb/egov/.

Component: Use existing SRM Components or identify as "NEW". A "NEW" component is one not already identified as a service component in the FEA SRM.

Reused Name and UPI: A reused component is one being funded by another investment, but being used by this investment. Rather than answer yes or no, identify the reused service component funded by the other investment and identify the other investment using the Unique Project Identifier (UPI) code from the OMB Ex 300 or Ex 53 submission.

Internal or External Reuse?: 'Internal' reuse is within an agency. For example, one agency within a department is reusing a service component provided by another agency within the same department. 'External' reuse is one agency within a department reusing a service component provided by another agency in another department. A good example of this is an E-Gov initiative service being reused by multiple organizations across the federal government.

Funding Percentage: Please provide the percentage of the BY requested funding amount used for each service component listed in the table. If external, provide the funding level transferred to another agency to pay for the service.

	Agency Component Name	Agency Component Description	Service Domain	Service Type	Component	Reused Component Name	Reused UPI	Internal or External Reuse?	Funding %
1	Space and Ground Network IT Support	The MCC conducts configuration management of the hardware and software that comprise the operational and development systems.	Business Management Services	Management of Processes	Configuration Management			No Reuse	4.00

2	Space and Ground Network IT Support	The MCC stores real-time telemetry, trajectory, command, ground network, voice and user-created data on a variety of media.	Digital Asset Services	Document Management	Library / Storage			No Reuse	3.00
3	Space and Ground Network IT Support	The MCC stores real-time telemetry, trajectory, command, ground network, voice and user-created data on a variety of media.	Digital Asset Services	Knowledge Management	Information Sharing			No Reuse	2.00
4	Space and Ground Network IT Support	MCC analysis and statistics are carried out through mission simulations. This is the environment in which actions and decisions are assessed for their impact on operations.	Business Analytical Services	Analysis and Statistics	Mathematical			No Reuse	5.00
5	Space and Ground Network IT Support	The MCC utilizes imagery from an operational perspective to understand the relationship of objects to the spacecraft and the relationship of the crew and equipment to the spacecraft during space walks.	Business Analytical Services	Visualization	Imagery			No Reuse	6.00
6	Space and Ground Network IT Support	All MCC operational real-time data, system configuration data, application software, and audit data are recorded to tape daily. The tapes are sent to an off-site disaster recovery storage facility on a weekly basis. The MCC also archives Shuttle and Station telemetry data on optical media stored onsite at JSC for near-time retrieval.	Back Office Services	Data Management	Data Warehouse			No Reuse	5.00
7	Space and Ground Network IT Support	The MCC systems are very large and complex; therefore components are always being replaced with new technology. Integration with old technology and translation of data interfaces between old and new technology is almost always accomplished via custom software applications.	Back Office Services	Development and Integration	Legacy Integration			No Reuse	2.00
8	Space and Ground Network IT Support	Data from various input sources is written to common data stores. Custom applications are developed to integrate the data and perform computations on that data.	Back Office Services	Development and Integration	Data Integration			No Reuse	2.00
9	Space and Ground Network IT Support	Since the MCC systems support manned space flight, all hardware and software applications are thoroughly tested before being introduced into the operational environment.	Back Office Services	Development and Integration	Instrumentation and Testing			No Reuse	10.00
10	Space and Ground Network IT Support	The MCC systems are comprised of several millions of lines of custom software and written in numerous programming languages.	Back Office Services	Development and Integration	Software Development			No Reuse	50.00
11	Space and Ground Network IT Support	The Operating System auditing function is enabled on each IT System to detect intrusions. These audit logs are reviewed periodically for intrusions via manual procedures and custom software applications.	Support Services	Security Management	Intrusion Detection			No Reuse	3.00

12	Space and Ground Network IT Support	Access to all MCC IT systems is strictly controlled by account and password administration. This is typically accomplished through the capabilities of the operating system.	Customer Services	Customer Relationship Management	NEW			No Reuse	3.00
13	Space and Ground Network IT Support	Via the capabilities built into the operating system of each IT system, user groups are established and managed to allow group level access to applications and data.	Customer Services	Customer Relationship Management	NEW			No Reuse	2.00
14	Space and Ground Network IT Support	The Operating System auditing function is enabled on each IT System to provide audit trail capture and analysis. These logs are reviewed periodically via manual procedures and via custom software applications.	Support Services	Security Management	Audit Trail Capture and Analysis			No Reuse	3.00

Technical Reference Model

4. To demonstrate how this major IT investment aligns with the FEA Technical Reference Model (TRM), please list the Service Areas, Categories, Standards, and Service Specifications supporting this IT investment.

FEA SRM Component: Service Components identified in the previous question should be entered in this column. Please enter multiple rows for FEA SRM Components supported by multiple TRM Service Specifications.

Service Specification: In the Service Specification field, Agencies should provide information on the specified technical standard or vendor product mapped to the FEA TRM Service Standard, including model or version numbers, as appropriate.

SRM Component	Service Area	Service Category	Service Standard
Configuration Management	Service Platform and Infrastructure	Software Engineering	Software Configuration Management
Data Warehouse	Service Platform and Infrastructure	Database / Storage	Database
Data Warehouse	Service Platform and Infrastructure	Hardware / Infrastructure	Peripherals
Imagery	Service Platform and Infrastructure	Database / Storage	Database
Imagery	Service Platform and Infrastructure	Database / Storage	Storage
Imagery	Service Platform and Infrastructure	Hardware / Infrastructure	Local Area Network (LAN)
Information Sharing	Service Platform and Infrastructure	Database / Storage	Storage
Information Sharing	Service Platform and Infrastructure	Hardware / Infrastructure	Local Area Network (LAN)
Information Sharing	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers
Instrumentation and Testing	Service Platform and Infrastructure	Software Engineering	Test Management
Library / Storage	Service Platform and Infrastructure	Database / Storage	Storage
Mathematical	Service Platform and Infrastructure	Database / Storage	Database
Mathematical	Service Platform and Infrastructure	Database / Storage	Storage
Mathematical	Service Platform and Infrastructure	Hardware / Infrastructure	Local Area Network (LAN)
Mathematical	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers

5. Will the application leverage existing components and/or applications across the Government (i.e., FirstGov, Pay.Gov, etc)?
No
5.a. If ‘‘yes,’’ please describe.
6. Does this investment provide the public with access to a government automated information system?
No
6.a. If ‘‘yes,’’ does customer access require specific software (e.g., a specific web browser version)?
6.a.1. If ‘‘yes,’’ provide the specific product name(s) and version number(s) of the required software and the date when the public will be able to access this investment by any software (i.e. to ensure equitable and timely access of government information and services).

RISK

Risk Management

You should perform a risk assessment during the early planning and initial concept phase of the investment's life-cycle, develop a risk-adjusted life-cycle cost estimate and a plan to eliminate, mitigate or manage risk, and be actively managing risk throughout the investment's life-cycle.

Answer the following questions to describe how you are managing investment risks.

1. Does the investment have a Risk Management Plan?

Yes

1.a. If "yes," what is the date of the plan?

Aug 10, 2004

1.b. Has the Risk Management Plan been significantly changed since last year's submission to OMB?

No

1.c. If "yes," describe any significant changes:

2. If there is currently no plan, will a plan be developed?

2.a. If "yes," what is the planned completion date?

2.b. If "no," what is the strategy for managing the risks?

3. Briefly describe how investment risks are reflected in the life cycle cost estimate and investment schedule: (O&M investments do NOT need to answer.)

The project employed a Cost-Effectiveness Analysis (as defined in OMB Circular A-94) in comparing the alternatives. The alternative is cost-effective if, on the basis of life cycle cost analysis of competing alternatives, it is determined to have the lowest costs expressed in present value terms. Cost effectiveness analysis is being used because it is unnecessary or impractical to consider the dollar value of the benefits provided by the alternatives. This is a case when each alternative has the same annual effects and dollar values cannot be assigned to their benefits.

In addition to the total cost of ownership, risk analysis and sensitivity analysis was used in understanding the risk-adjusted costs. The project has accounted for risk in each of the alternatives reviewed.
There are residual risks that are common to all alternatives and that are basically unavoidable. These risks include
a) the risk entailed with buying and using high performance technology that is at the leading edge - systems that are sold in small numbers and so are not field-proven - systems that are not as reliable as servers and microcomputers sold by the millions;
b) risks of a dynamically evolving market, with vendors and product lines entering and exiting frequently, and with products evolving rapidly at the edge of what is technically possible;
c) risk of changes in user workload composition and size and that the workload may not be well-suited to the platform;
d) limited supply of staff with the specialized skills required to configure, operate, and maintain these specialized machines - in particular, finding system administrators with the specialized skills required for specific machines.

The project has accounted for risks as defined in the Risk Management plan. All risks have been quantified and are included as a cost. Additionally, these risks are taken into consideration in the Acquisition Strategy and are tracked though-out the life cycle of the projects by project management processes including Operational Analysis.

COST & SCHEDULE

Cost and Schedule Performance

1. Does the earned value management system meet the criteria in ANSI/EIA Standard – 748?	
Yes	
2. Answer the following questions about current cumulative cost and schedule performance. The numbers reported below should reflect current actual information. (Per OMB requirements Cost/Schedule Performance information should include both Government and Contractor Costs):	
2.a. What is the Planned Value (PV)?	
113.125	
2.b. What is the Earned Value (EV)?	
111.688	
2.c. What is the actual cost of work performed (AC)?	
30.071	
2.d. What costs are included in the reported Cost/Schedule Performance information?	
Contractor and Government	
2.e. "As of" date:	
Apr 16, 2006	
3. What is the calculated Schedule Performance Index (SPI= EV/PV)?	
0.99	
4. What is the schedule variance (SV = EV-PV)?	
-1.437	
5. What is the calculated Cost Performance Index (CPI = EV/AC)?	
3.71	
6. What is the cost variance (CV = EV–AC)?	
81.617	
7. Is the CV or SV greater than 10%?	
Yes	
7.a. If "yes," was it the CV or SV or both?	
CV	
7.b. If "yes," explain the variance.	
The Actual Cost (AC) calculated by Prosight reflects IT-related DME for the MCC, including Government and MSOC budget. The PV and EV data provided above reflects only MSOC contracted costs for the MCC. Further, the MSOC data contains IT, non-IT, steady state, and DME.	
7.c. If "yes," what corrective actions are being taken?	
No corrective action is being taken as MSOC's total cost variance for the MCC is within the established threshold of +/-5%. The cost variance calculated above is not a valid indicator of actual cost performance.	
7.d. What is most current "Estimate at Completion"?	
25.886	
8. Have any significant changes been made to the baseline during the past fiscal year?	
No	
8.a. If "yes," when was it approved by OMB?	

Actual Performance against the Current Baseline

Complete the following table to compare actual performance against the current performance baseline and to the initial performance baseline. In the Current Baseline section, for all milestones listed, you should provide both the baseline and actual completion dates (e.g., "03/23/2003"/ "04/28/2004") and the baseline and actual total costs (in $ Millions).

	Description of Milestone	Initial End Date	Initial Total Cost ($mil)	Planned End Date	Actual End Date	Planned Total Cost ($mil)	Actual Total Cost ($mil)	Schedule Variance (# of days)	Cost Variance ($mil)	Percent Complete
1	FY06 Incremental Development Cost	Sep 30, 2006	11.888	Sep 30, 2006	Sep 30, 2006	11.890	13.150	0	1.260	58.00
2	FY06 Operations Cost	Sep 30, 2006	44.661	Sep 30, 2006	Sep 30, 2006	32.770	38.231	0	5.461	58.00
3	FY07 Incremental Development Cost	Sep 30, 2007	9.125	Sep 30, 2007		9.125				0.00
4	FY07 Operations Cost	Sep 30, 2007	41.984	Sep 30, 2007		32.860				0.00
5	FY08 Incremental Development Cost	Sep 30, 2008	15.312	Sep 30, 2008		15.312				0.00
6	FY08 Operations Cost	Sep 30, 2008	48.119	Sep 30, 2008		32.810				0.00
7	FY06 Operations Cost	Sep 30, 2006	44.661	Sep 30, 2006	Sep 30, 2006	32.770	38.231	0	5.461	58.00

			DME	Steady State	Total
Completion date: Current Baseline:		**Total cost: Current Baseline:**			
Estimated completion date:		**Estimate at completion:**			